

REMARKS

An Office Action mailed May 2, 2007 made the rejections of claims 1-25 and 44-46, 48-82 and 100-101 final. The Final Office Action indicated that claims 83-99 included allowable subject matter. Claims 27-43 are withdrawn from consideration. Applicant filed an after-final response submitting certain claim amendments. However, the Examiner noted in an Advisory Action mailed July 25, 2007 that the amendments raised new issues that would require further consideration and search and entry of the amendments were declined.

Certain of the amendments are resubmitted in this response and entry and consideration is respectfully requested. In this response, claims 1, 5, 83 and 90 are amended and claims 102-118 are added. Upon entry of the amendments, claims 1-25, 44-46 and 48-118 will be pending in the application. Applicant incorporates herein by reference the arguments presented in response to prior Office Actions.

Examiner Interview

Applicant reproduces this Interview Summary for the convenience of the Examiner. Applicant thanks the Examiner for the courtesies extended during the telephonic interview with Karl Bizjak (inventor) and the undersigned on June 20, 2007. In the interview, the relevance of Kitani was discussed including a review of the claims as contrasted with various drawings – in particular with Figs. 4 and 5 – and potential claim amendments to further distinguish the presently claimed inventions from Kitani.

Applicant explained the performance benefits obtained by the invention and stressed that Kitani does not teach all of the claimed elements. Specifically, Applicant explained that Kitani provides no method or suggestion of synchronizing a gain signal with an input signal. Kitani merely shows synchronization of an up/down counter 16 with a system clock scaled by counter 19. The output of counter 16 is used to set a gain of gain cell 11, but gain cell 11 includes no synchronizing logic or function. In response to a question by the Examiner, Applicant explained that the direction of counting on the Kitani up/down counter 16 is controlled by comparator 15 that compares a power level measured in the input signal (using low pass filter 14) with a threshold value reflective of the gain provided by up/down counter 16. Thus, the Kitani gain is synchronized only to a system clock and is not synchronized to the input signal or any predetermined event in the input signal.

**Claim Amendments**

Applicant submits certain claim amendments in this response. These amendments are submitted to clarify certain elements of the claims identified as potentially unclear by the Examiner in the Office Action and the interview.

Claim 1 is amended to require *inter alia* an input detector for detecting a predetermined condition of the input signal and gain calculate logic responsive to the input signal and the input detector for generating a gain signal that includes a gain value. (N.B. similar input detection logic limitations that were previously recited in claim 5 are deleted in this amendment). Furthermore, the required synchronizing logic is responsive to the gain signal with the input detector and synchronizes the input signal and the gain signal to provide an output signal. Kitani does not teach or suggest the input detector, a predetermined condition in the input signal or the synchronizing logic as recited. Applicant believes the claims as previously presented were also allowable and reserves the right to pursue the previously presented claims in a continuation application.

Regarding claims 83 and 90, the Examiner noted in the Final Office Action that the claims as submitted included allowable subject matter. Applicant therefore submits amendments to these claims calculated to overcome the objection to the use of the phrase “capable of.” Therefore, claims 83-99 should now be allowable.

In the after-final response, Applicant submitted certain additional amendments to claims 83-99. These additional amendments were not entered. Accordingly, Applicant submits new claims 102-118 based on claims 83-99 and including the additional amendments. For example, claims 102-118 require gain calculate logic. Applicant requests consideration and allowance of claims 102-118.

**Claim Objections**

As noted above, Applicant has amended claims 83 and 90 removing the objected-to phrase “capable of.” The Examiner noted in the Advisory Action that such amendment is sufficient to overcome the objection. Consequently, Applicant respectfully requests withdrawal of the objections.

**CONCLUSION**

All objections and rejections having been addressed, it is respectfully submitted that the present application is in a condition of allowance and a Notice to that effect is earnestly solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,  
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